

Serial No.: 10/765,309

Examiner: M. Stahl

Title: OPTICAL ELEMENT, OPTICAL CIRCUIT PROVIDED WITH THE OPTICAL ELEMENT, AND METHOD FOR....

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REMARKS/ARGUMENTS

Reconsideration is requested in view of the following remarks. Claims 1 and 22 have been editorially revised. Support for the claim revisions is found on page 14, lines 15-28 of the specification and in Figure 1. Claim 26 has been newly added. Support for claim 26 is found on page 31, line 15 to page 32, line 18, among other places in the specification. Claims 1-26 are pending in the application.

Claim Rejections – 35 USC §102

Claims 1-5, 7-8, 10-14 and 22-25 are rejected under 35 U.S.C. §102(b) as anticipated by Fournier et al. (US 5,210,801). Applicants respectfully traverse this rejection.

Claim 1 is directed to an optical element comprising a structure having at least one convex portion and at least one concave portion formed so as to be adjacent to one of the convex portions, at least one surface of the structure being covered, the optical element having a hollow portion. Claim 1 requires the at least one surface of the structure is covered with a covering layer formed by a deposition process such that the height of the hollow portion is the same as the depth of the concave portion.

Fournier et al. disclose an optical element comprising a structure having at least one convex portion and at least one concave portion formed so as to be adjacent to one of the convex portions, at least one surface of the structure being covered, the optical element having a hollow portion, wherein the at least one surface of the structure is covered with a covering layer formed by a deposition process. Fournier et al. describe in column 11, a cavity (hollow portion) 26d in Figure 7 that is produced by a series of ordered steps including formation of a trench (concave portion) → deposition of a layer 38 → deposition of a layer (covering layer) 24 → removal of the layer 38.

In contradistinction, claim 1 claims a hollow portion that is produced only by the formation of a concave portion and the deposition of a covering layer. Nowhere do Fournier et al. disclose or suggest a hollow portion that is produced only by the formation of a concave portion and the deposition of a covering layer. The claimed features of claim 22 correspond with those of claim 1.

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Further, the height of the cavity (hollow portion) 26d disclosed by Fournier et al. is larger than the depth of a trench (concave portion). This is because the deposition thickness of the layer 38 is set to be larger than the depth of the trench (concave portion) as described in column 11, lines 36-39 of Fournier et al.

In contradistinction, the height of the hollow portion claimed in claims 1 and 22 is the same as the depth of the concave portion. This is because the initial shape of the concave portion (groove) can be maintained when the covering layer is deposited, as described on page 14, lines 15-28 of the specification.

For at least these reasons, claims 1 and 22 are patentable over Fournier et al. Claims 2-5, 7-8 and 10-14 are patentable since they depend ultimately from claim 1 that is allowable. Claims 23-25 and newly added claim 26 are patentable since they depend ultimately from claim 22 that is allowable.

Claim Rejections – 35 USC §103

Claims 6 and 9 are rejected under 35 U.S.C. §103(a) as unpatentable over Fournier et al. in view of knowledge possessed by one skilled in the art. Applicants respectfully traverse this rejection for the reasons discussed herein above regarding claims 1 and 22. Claims 6 and 9 are patentable over Fournier et al. since they depend ultimately from claim 1 that is allowable. Applicants do not concede the correctness of the rejection as applied to the remaining features of claims 6 and 9.

Applicants appreciate the indication of allowability for claims 15-21. Applicants respectfully submit that claims 1-5, 7-8, 10-14 and 22-25 likewise are allowable.

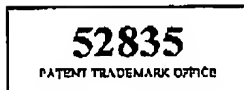
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Favorable reconsideration in the form of a Notice of Allowance is requested. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone Applicants' primary attorney-of-record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.

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Respectfully submitted,

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